Images in Infectious Diseases

Dengue fever with thrombocytopenia and gingival bleeding

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A 45-year-old man was admitted on the sixth day owing to classic dengue symptoms that included spontaneous bleeding from the gums and a purpuric rash. His white blood cell count on admission was 3.1 × 10³/µL with a low platelet count of 2,000. On physical examination, gingival bleeding, scattered petechiae, and ecchymoses were observed (Figures 1A, 1B, 1C and 1D). Results of cardiorespiratory, gastrointestinal, and neurological examinations were normal. Chest radiography showed no pleural effusion and an abdominal ultrasound showed no free fluid in the cavity. The lowest platelet count (1.0 × 10³/µL) was reported from the seventh to ninth day of the illness.

Laboratory tests revealed positivity for immunoglobulin M (IgM) antibodies to dengue virus. Subsequently, treatment for thrombocytopenic purpura due to dengue was initiated. Hydrocortisone 500mg/day was administered intravenously for 6 days, and, prednisone 20mg/day, for an additional 10 days. Two days after initiating treatment, the bleeding stopped, and by the ninth day post-treatment, platelet count increased to 30,000 cells/mm³. The patient’s hospital course was uncomplicated, he remained clinically well, and he was discharged with instructions to return for follow-up in the outpatient clinic. No spontaneous hemorrhagic events have occurred since, and platelet counts have remained within normal levels (Figure 2 and Figure 3).

Acute immune thrombocytopenia can be linked to underlying conditions like connective tissue disease, lymphoproliferative disease, immune-deficient states, and viral infections, or to medications administered[1-3]. Thrombocytopenia associated with viral infection results from both lowered platelet production from megakaryocytes, and decrease in platelet half-life.

Conflict of interest
The authors declare that there is no conflict of interest.

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FIGURE 1 - Dengue fever. A: Acute gingival bleeding (white arrows). B: Scattered ecchymoses and petechiae. C: Hematoma on the left arm after blood pressure cuff inflation. D: Multiple ecchymoses on the right arm.
REFERENCES


FIGURE 2 - Platelet counts during the clinical course.

FIGURE 3 - Disappearance of the hematoma as observed at the final follow-up.